DR® TOW-BEHIND ROTOTILLER SAFETY & OPERATING INSTRUCTIONS





Model: PREMIER 36T

Serial No. _____

Order No. _____

DR[®] Power Equipment *Toll-free phone:* 1-800-DR-OWNER (376-9637) *Website:* www.DRPower.com

Read and understand this manual and all instructions before operating this DR TOW-BEHIND ROTOTILLER.

Table of Contents

Chapter 1: General Safety Rules	2
Chapter 2: Setting Up Your DR TOW-BEHIND ROTOTILLER	7
Chapter 3: Operating Your DR TOW-BEHIND ROTOTILLER	11
Chapter 4: Maintaining Your DR TOW-BEHIND ROTOTILLER	16
Chapter 5: Troubleshooting	20
Chapter 6: Parts Lists, Schematic Diagrams And Warranty	23

Conventions used in this manual

This indicates a hazardous situation, which, if not avoided, *could* result in death or serious injury.

A CAUTION

This indicates a hazardous situation, which, if not avoided, *could* result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.



Figure 1

Serial Number and Order Number

A Serial Number is used to identify your machine. The number is located on the Serial Number Label attached to the chassis of your machine (*Figure 1*). For your convenience and ready reference, enter the Identification number in the space provided on the front cover of this manual. An Order Number is used to check and maintain your order history. The number is located on the upper left portion of your packing slip. For your convenience and ready reference, enter the order number in the space provided on the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

California Proposition 65



Read this safety & operating Instructions manual before you use the DR TOW-BEHIND ROTOTILLER. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

Your DR TOW-BEHIND ROTOTILLER carries prominent labels as reminders for its proper and safe use. Shown below are copies of the Safety and Information Labels that appear on the equipment. Take a moment to study them and make a note of their location on your DR TOW-BEHIND ROTOTILLER as you assemble and before you operate the machine. Replace damaged or missing safety and information labels immediately.



Protecting Yourself and Those Around You

The DR TOW-BEHIND ROTOTILLER is a high-powered machine with fast moving parts operating at high speeds. You must operate this machine safely. Unsafe operation can create hazards for you, as well as anyone else in the work area. Use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. Always take the following precautions when operating the DR TOW-BEHIND ROTOTILLER:

- Always wear protective goggles or safety glasses with side shields to protect your eyes from possible objects thrown from the machine.
- We recommend wearing safety shoes when using this machine. Wear shoes with non-slip treads to improve footing on slippery surfaces. Do not use the machine wearing open sandals or while barefoot.
- Do not wear loose clothing or jewelry, which can catch on the machine's moving parts.
- We recommend wearing long pants and gloves while using this machine. Be sure the gloves fit properly and do not have loose cuffs or drawstrings.
- We recommend the use of ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Allow only responsible individuals who are familiar with these general safety rules and operating instructions to use your DR TOW-BEHIND ROTOTILLER. Never allow people who are unfamiliar with these rules and instructions to use your machine.

#224521

- Have a complete working knowledge of your Tow Vehicle and know how to handle it with the DR TOW-BEHIND ROTOTILLER attached.
- Never place your hands, feet, or any part of your body near or under any moving part while the DR TOW-BEHIND ROTOTILLER Engine is running.
- Keep bystanders away from your work area at all times. To be safe, do not operate the DR TOW-BEHIND ROTOTILLER near children or pets, and never allow children to operate the machine. Stop the Tow Vehicle and the DR TOW-BEHIND ROTOTILLER Engine when another person or pet approaches.
- Do not touch the Muffler and Engine when the machine is in use as they become very hot and can cause severe burns.
- Clear the work area of objects that might jam or wrap around the tines such as glass, large sticks, stones, metal objects, wire, rope, and string-like materials. Use on these objects could damage the DR TOW-BEHIND ROTOTILLER and/or cause injury.
- Do not use this machine around large roots and surface rocks that you cannot remove.
- Do not use this machine around underground pipes and wiring.
- Never engage the Tines when they are in the ground. If the DR TOW-BEHIND ROTOTILLER Engine should stall, raise the Tines out of the soil and disengage them.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR TOW-BEHIND ROTOTILLER. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your warranty.

Slope Operation

Use of machinery on slopes is a major factor related to accidents, which can result in severe personal injury. Use of machinery on slopes requires caution. If you feel uneasy using the DR TOW-BEHIND ROTOTILLER on a slope, do not operate it. Always take the following precautions when using this machine on slopes:

Always:

- Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, and bumps on the ground.

Never:

- Never operate near drop-offs, ditches, or embankments; you could lose control of your Tow Vehicle and/or the DR TOW-BEHIND ROTOTILLER.
- Never operate on slopes greater than 5 degrees, or on any excessively steep slope.
- Never operate on wet, or slippery slopes. Reduced traction could result in tipping over your Tow Vehicle and/or the DR TOW-BEHIND ROTOTILLER.
- Never park the Tow Vehicle on a steep grade or slope.

Safety for Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children can be attracted to the DR TOW-BEHIND ROTOTILLER and the tilling activity. Never assume that children will remain where you last saw them.

- Keep children out of the work area and under the watchful care of a responsible adult.
- Be alert and always turn off your Tow Vehicle and the Tiller Engine if children enter the work area.
- Before, and while moving your Tow Vehicle backwards, look behind, and down for small children.
- Never allow children to operate the DR TOW-BEHIND ROTOTILLER.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline and always follow these precautions:

- Never run the DR TOW-BEHIND ROTOTILLER Engine in an enclosed area or without proper ventilation as the exhaust from the Engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat, open flame, and out of the reach of children.
- Fill the gasoline tank outdoors with the Engine off and allow the Engine to cool completely. Do not handle gasoline if you or anyone nearby is smoking, or if you are near anything that could cause it to ignite or explode. Replace the Fuel Tank and Fuel Container Caps securely.
- If you spill gasoline, do not attempt to start the Engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- Allow the DR TOW-BEHIND ROTOTILLER Engine to cool completely before storing in any enclosure. Never store the machine with gas in the Tank or with gas in a Fuel Container near an open flame or spark such as a water heater.
- Never make adjustments or repairs with the Engine running. Before making an adjustment or repair, shut off the DR TOW-BEHIND ROTOTILLER Engine, wait five (5) minutes to cool, then disconnect the Spark Plug Wire and keep the Wire away from the Spark Plug to prevent accidental starting.
- Never check for an ignition spark with the Spark Plug or Spark Plug Wire removed. Always use an approved Spark Tester.
- Never tamper with safety devices. Regularly check their proper operation.
- Never change the Engine Governor settings or modify the Engine speed. Modifications will void your warranty.
- To reduce fire hazard, keep the Engine and Muffler area free of debris build-up such as leaves, grass, oil, grease, or any other combustible material. Clean the Engine area after each use.
- Never operate the Engine without the Muffler. Inspect the Muffler periodically and replace if necessary. If the Engine is equipped with a Muffler Deflector, inspect it periodically and replace if necessary.
- Never operate the Engine with the Air Cleaner or Cover over the Carburetor Air Intake removed, except for adjustment. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean the Air Filter.
- Always check Fuel Lines and Fittings frequently for cracks or leaks, replace if necessary.
- Replace rubber Fuel Lines and Grommets when worn or damaged, but do not use over five (5) years.

General Safety

Safe operation of the DR TOW-BEHIND ROTOTILLER is necessary to prevent or minimize the risk of *death or serious injury*. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this machine:

- The DR TOW-BEHIND ROTOTILLER is a powerful tool and not a plaything. When using this machine, exercise extreme caution at all times. The design of this machine is to till soil. Do not use it for any other purpose.
- The operator or user of the DR TOW-BEHIND ROTOTILLER is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Know how to quickly stop the DR TOW-BEHIND ROTOTILLER. See page 11.
- Never allow people or pets to ride on this machine.
- If the machine should make an unusual noise or vibration, shut off the Tow Vehicle and the DR TOW-BEHIND ROTOTILLER Engines. Vibration is generally a warning of trouble. Wait five (5) minutes for the DR TOW-BEHIND ROTOTILLER Engine to cool. Disconnect the Spark Plug Wire and then inspect the machine for clogging, damaged Tines, or loose Engine mounting Bolts. Clear any obstructions and repair and/or replace damaged parts.
- Always keep the machine in good safe operating condition. Always make certain Nuts and Bolts are tight and always use the supplied self-locking hardware. DO NOT USE SUBSTITUTE HARDWARE.
- Always shut off the Tow Vehicle and DR TOW-BEHIND ROTOTILLER Engine, wait five (5) minutes to cool, and disconnect the Spark Plug Wire before attempting to clear any obstructions.
- Use the DR TOW-BEHIND ROTOTILLER only in daylight and give complete and undivided attention to the job at hand.
- Do not hurry or take things for granted when using the DR TOW-BEHIND ROTOTILLER. When in doubt about the machine or your surroundings; stop the machine and take time to look things over.
- Exercise extreme caution when on or crossing drives, walks, or roads. Stay alert for hidden hazards or traffic.
- Never leave the DR TOW-BEHIND ROTOTILLER unattended with the Engine running. If leaving the machine, shift the Tow Vehicle into neutral, set the Vehicle Parking Brake, turn off the Vehicle Engine and remove Key; raise the Tines of the Tiller and disengage the Tine Drive then turn off the Tiller Engine.
- Prior to transportation to and from the work area, disengage the Tiller Tine Drive, stop the Tiller Engine, and raise the Tines.
- Do not operate the machine when under the influence of alcohol, drugs, or medication.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.

A Note to All Users

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate the DR TOW-BEHIND ROTOTILLER in a safe manner. Visit our website at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion Engine using hydrocarbon fuels without an Engine Spark Arrester. This also applies to operation on US Forest Lands. All DR TOW-BEHIND ROTOTILLERs shipped to California and Washington State are provided with Spark Arresters. Failure of the owner/operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your local Fire Marshal, Forest Service, State Park Association, or the appropriate state organization for specific information in your area.

Chapter 2: Setting Up Your DR TOW-BEHIND ROTOTILLER

It may be helpful to familiarize yourself with the Controls and Features on your new machine by reviewing *Figure 2* before beginning the steps outlined in this chapter. For technical assistance, please visit our website at **www.DRPower.com**.

DR TOW-BEHIND ROTOTILLER Controls and Features

NOTE: The model shown in Figure 2 may look slightly different from your machine.



Figure 2

DR TOW-BEHIND ROTOTILLER Specification Sheet

Engine	DR 6.6HP, 223 CC, Single Cylinder
Approximate Run Time on a Tank of Fuel	90 minutes
Towing type	Pin Hitch
Ground Clearance in Transport Mode	1.5"
Height Adjustment	Manual
Range	5.5" deep
Tine Size	12"
Number of Tines	12
Wheels	10" x 2.25" Polypropylene
Machine Size	39"w x 66"L (Transport), 35"H x 77"L (Lowest Position)
Machine Weight	169 lbs
Tongue Weight	90 lbs. (Transport) 112 lbs. (Lowest Position)
Shipping Weight	310 lbs.
Gauge of Steel on Shroud	13
Gauge of Steel on Frame	12 Gauge, 1.5" Tubular Steel

Assembling the Machine

NOTE: Assembling the DR TOW-BEHIND ROTOTILLER is a two-person job, as the Unit weighs 169 pounds. We recommend you have an extra set of hands available before you begin.

Parts Supplied on Shipping Pallet:

- DR TOW-BEHIND ROTOTILLER
- Wheel Box:
- Two Wheels
- Hitch Bracket Extension
- Bolt, 1/2" x 1-1/4"
- Locknut, 1/2"-13
- Safety & Operating Instructions Manual
- DR Engine Manual

Tools and Supplies Needed:

- Pliers
- 1/2 Wrench
- (2) 9/16 Wrenches

- 1. Use two 9/16" Wrenches to remove the Bolt and Nut securing the Tow Hitch to the Pallet *(Figure 3)*.
- 2. Use a 1/2" Wrench to remove the four Lag Screws securing the Support Brackets to the Pallet *(Figure 4)*.
- 3. Push the Lift Handle back towards the engine (Figure 2).
- 4. Use Pliers to remove the outside Cotter Pins and Washers on the Axle and remove the Support Brackets from the Axle *(Figure 5)*.

Note: Set the Cotter Pins and Washers aside. You will need them when assembling the machine.

- 5. Position the Wheels onto the Axle against the Washers and Cotter Pins that were left on the Axle *(Figure 6)*.
- 6. Secure the Wheels with the Washers and Cotter Pins that were previously removed and bend the Cotter Pins with Pliers.
- 7. Pull the Lift Handle Forward to lower the wheels (*Figure 2* on page7).
- 8. Get help from another person to roll the Tiller from the Pallet.

If there are any questions, contact us at www.DRPower.com or call 1-800-DR-OWNER (376-9637).

Do not discard the shipping materials until you are fully satisfied with your new **Figure 4** DR[®] PREMIER ROTO-HOG Power



Support Bracket





Pallet





Figure 6

Adding the Engine Oil and Gasoline

NOTICE

- You must add Oil before starting the Engine. This machine is shipped without Oil. Traces of Oil may be in the reservoir from factory testing, but <u>you must add Oil before starting the Engine</u>. Fill the reservoir slowly, checking the level frequently, to avoid overfilling.
- To get an accurate reading when checking the Oil level the machine should be on a level surface.









Figure 9

Capacities		
DR 6.6HP, 223 CC, Single Cylinder	\Rightarrow SAE 30 High Detergent Oil – 17 oz. (.5L)	
Gasoline Tank	\Rightarrow Unleaded Gas (85 Octane minimum), 3.5 Qts. (3.4 L)	

Tip: To avoid confusion, we recommend leaving the Caps on the Fuel and Engine Oil Fills and only removing one Cap each time when you are ready to pour Gasoline or Oil into the correct Fill.

NOTE: Use SAE 30 High Detergent Oil classified "For Service SF, SG, SH, SJ" or higher. Do not use special additives. Other types of Oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed Oil information.

- Place the machine on a level surface and remove the Oil Fill/Dipstick (Figure 7).
- 2. Initially add 12 oz. (1/3 quart) of SAE 30 High Detergent oil, recommended by the Engine Manufacturer, and wait one minute for the oil to settle.
- 2. Continue adding a few ounces of oil at a time, until the oil reaches the Full line on the Dipstick (*Figure 8*). Be careful not to overfill.
- Fill the Gas Tank with fresh, unleaded gas (with a minimum of 85 Octane), to approximately 1" to 1-1/2" below the top of the Fill Neck to allow for Fuel expansion. Be careful not to overfill and reinstall the Cap before starting the Engine. See your Engine Owner's Manual for more information.

NOTE: To refill the Gas Tank, turn the Engine OFF, and let the Engine cool at least five (5) minutes before removing the Gas Fill Cap.

Fill gas tank outdoors or in a well-ventilated area, away from sparks, open flames, pilot lights, heat, and other ignition sources.

Connecting the DR TOW-BEHIND ROTOTILLER to your Tow Vehicle

- 1. Place the Tiller on level ground and back up your Tow Vehicle so that the Hitch of the Vehicle is in line with and next to the Hitch on the DR TOW-BEHIND ROTOTILLER. Set the Parking Brake on the Tow Vehicle.
- 2. Attach the Hitch of the Tiller to the Tow Vehicle using a Hitch Pin and the Hair Cotter Pin (*Figure 9*).

NOTE: The DR TOW-BEHIND ROTOTILLER comes with a Hitch Extension Bracket. This Bracket can be used to slightly lower or elevate the front of the machine. When using this bracket, use the provided $1/2-13 \times 1-1/4$ " Bolt and 1/2-13 Locknut to attach the Bracket to the Tow Vehicle and use the Channel Pin and Hair Pin to attach the Machine to the Bracket

Chapter 3: Operating Your DR TOW-BEHIND ROTOTILLER

This chapter covers the procedures for starting and stopping your new DR TOW-BEHIND ROTOTILLER and discusses basic operation features. You may find it helpful to review the DR TOW-BEHIND ROTOTILLER Controls and Features on page 8 before reading this chapter.

🛕 WARNING

- The design of this machine is for tilling soil. Never use this machine for any other purpose as it could cause serious injury.
- Contact with internal rotating parts will cause serious personal injury. Never put hands, face, feet, or clothing under or near the debris shield with the engine running.
- Before performing any maintenance procedure or inspection, stop the engine and wait five minutes to allow all parts to stop and cool. Disconnect the spark plug wire keeping it away from the spark plug.
- Inspect the area where you will be working. The site must be free of potentially hazardous obstacles such as glass, large stones, sticks, wire, rope, and string-like materials. Make sure there are no people or animals in the area around the DR ROTO-HOG power tiller.

The DR TOW-BEHIND ROTOTILLER is designed to be used with most ATVs, Lawn\Garden Tractors, and Compact Tractors. The DR TOW-BEHIND ROTOTILLER should never be used with a Truck (2WD or 4WD). Use of a Truck will void the DR TOW-BEHIND ROTOTILLER Warranty.

Before Starting the Engine

- 1. Raise the Tines and place the machine on level ground.
- 2. Check the Engine Oil level every time you use the machine (*Figure 7*).
- 3. Remove any built-up debris from the Tines.
- 4. Pull the Tine Clutch Lever all the way forward until it locks into place to disengage the Tines. A Safety Interlock Switch prevents the Engine from starting with the Tines engaged.
- 5. Ensure the Fuel Shut-Off is in the "ON" position (Figure 10).

Starting

- 1. Turn the On/Off Switch to the "ON" position
- 2. When starting a cold Engine, push the Choke Control Lever to the Choke position and the Throttle Control Lever to Run position (*Figure 6*).
- Grasp the Recoil Starter Handle and <u>slowly pull until you feel resistance</u>, then pull the cord with a <u>smooth accelerating motion</u> to start the Engine. Do not let the Starter Handle snap back against the Engine. One or two pulls usually starts the DR TOW-BEHIND ROTOTILLER.
- 3. After the Engine starts Adjust the Choke Lever until the Engine runs smoother. Continue this process until the Engine runs well with the Choke fully in the RUN position.







Figure 11

Operating Safety

WARNING

Be thoroughly familiar with the controls and the proper use of your DR TOW-BEHIND ROTOTILLER before using. Never allow anyone to operate the DR TOW-BEHIND ROTOTILLER without first reading and understanding all instructions in this manual.

Stopping the Engine

(Figure 10).

NOTICE

1. Raise the Tines out of the Ground.

disengage the Tines (Figure 11).

4. Turn the On/Off Switch to the "OFF" position.

2. Pull the Tine Clutch Lever all the way forward until it locks into place to

3. Move the Throttle Control Lever to the Right so it is in the Idle position

Never stop the engine by moving the throttle control lever to the choke

position. This could cause an engine backfire resulting in engine damage.

- Engage the tines in the air without contacting the soil. Slowly lower the tines into the soil while seated on the tow vehicle. Engaging the tines with them in the soil may cause the Roto Hog to push the tow vehicle forward.
- The first pass on unknown soil conditions should be only about an inch to test the soil conditions.
- Never allow people or pets to ride on this machine.
- Always check for objects and obstacles in the path of this machine before moving. •
- Always wear protective goggles or safety glasses with side shields to protect your eyes from possible objects thrown from this machine.
- Do not wear loose clothing or jewelry, which can catch on the machine's moving parts.
- We recommend wearing long pants and gloves while using this machine. Be sure the gloves fit properly and do not have loose • cuffs or drawstrings.
- We recommend wearing safety shoes when using this machine. Wear shoes with non-slip treads to improve footing on slippery surfaces. Do not use the machine wearing open sandals or while barefoot.
- We recommend the use of ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Never put your hands near the tines to clear debris while the engine is running. Always shut off the DR TOW-BEHIND • ROTOTILLER engine and disconnect the spark plug wire before clearing debris.
- Do not refuel the engine while it is hot or running.

NOTICE

Use common sense when using the machine. Learn to recognize the change in sounds when it is overloaded. Turn off the Engine immediately if the machine becomes jammed to prevent damage to the drive system.



Figure 12

Engaging the Tines

Push the Tine Clutch Lever towards the back of the machine to engage the Tines (Figure 12).

Disengaging the Tines

Pull the Tine Clutch Lever Forwards to disengage the Tines.

Raising the Tines

Pull the Lift Handle Lever towards the Tow Vehicle to Raise the Tines (Figure 13).

Lowering the Tines

1. Push the Lift Handle Lever towards the Tiller to Lower the Tines.

Adjusting the Depth Stake

The top Depth Stake Hole selects a till depth of 5" with each lower Hole decreasing the till depth by 1" to a minimum of 1" using the bottom hole.

- 1. To change the till depth, remove the Hair Pin from the Clevis Pin which is connecting the Depth Stake to the Stake Support Bracket (*Figure 14*).
- 2. Grasp the top of the Depth Stake, remove the Clevis Pin and reposition the Depth Stake. Insert Clevis Pin and Hair Pin.
- **NOTE:** The Depth Stake should never be removed from the Tiller. It is designed to protect the Tow Vehicles Transaxle from the thrusting action of the Tiller.

Operating Procedures

There are three (3) applications for the DR TOW-BEHIND ROTOTILLER: Garden Tilling, Sod Busting, and small Food Plot installation. For all applications, engage the Tines while they are raised and not contacting the soil. Then slowly lower the Tines into the soil to the proper depth for the different soil conditions.



- Do not use this machine around large roots and surface rocks that you cannot remove.
- Never engage the tines when they are in the ground. If the DR TOW-BEHIND ROTOTILLER engine should stall, raise the tines out of the soil and disengage them.
- Engage the tines in the air without contacting the soil. Slowly lower the tines into the soil while seated on the tow vehicle. Engaging the tines with them in the soil may cause the Roto Hog to push the tow vehicle forward.
- The first pass on unknown soil conditions should be only about an inch to test the soil conditions.
- When transitioning from a tilled area to the edge where the sod has not been tilled, be sure to stop the tow vehicle so tiller tines are short of the untilled area, disengage and lift the Tines up before continuing.

Gardens:

- 1. Check the area for large stones and foreign objects that could snag or wedge into the Tines.
- 2. Perform a soil test to assess needs for soil treatment.

Tip: If a soil test indicates amendments necessary (lime, fertilizers, sulfur, etc) then apply before tilling to best integrate it into the soil.

3. Check wetness in the soil to determine if clumping will require slower Tow Vehicle speeds.

Food Plot Installation and Sod Busting:

- 1. Clear the work area of objects such as glass, large sticks and stones, roots, metal objects, wire, rope, and string-like materials.
- 2. Cut all vegetation to the lowest possible height.
- 3. Remove the cut vegetation by either rake, vacuum, blowing OR allow it to dry several days and re-cut.

CAUTION

Failure to remove long vegetation will result in frequent stalling of the Engine due to entanglement of the Tines.

- 4. Refer to seed specifications to determine the optimal depth of tillage necessary.
- 5. With initial pass, begin breaking only the top inch of soil to breakup sod.
- 6. Break the soil thoroughly across the entire area. See the following "Tilling Tips".
- 7. Gradually lower the Tines 1-2 inches and repeat step 6 until you are satisfied with the tillage created.

Tilling Tips

- In compacted soil or sod, or in food plot and sod busting applications, several passes may be necessary to till to a depth of five and a half (5.5) inches. For the first pass, just scratch the surface. The depth for each successive pass needs to be determined by individual site and soil conditions. If the machine stalls repeatedly, you should till slower or not as deep.
- Check the ground moisture. DO NOT till if you can make a ball of soil in your hand from the ground to be tilled; it is too wet. Create full tillage (depths up to 5.5") after entire area is dry.
- To obtain the most efficient tillage, operate the DR TOW-BEHIND ROTOTILLER Engine at full throttle at the slowest speed of your Tow Vehicle.
- When operating the machine for the first time, proceed slowly and carefully until you become familiar with the proper method of operating the machine.
- Soil conditions will determine how deep the machine can penetrate on the first pass.
- In damp soil, till only the top inch of seedbed. Allow tillage to dry for several hours in sunny and/or windy conditions.



Figure 15

- Listen to your DR TOW-BEHIND ROTOTILLER Engine. When the Engine RPM decreases or stalls (overloaded condition) raise the Tines for shallower tilling. If the Engine is lightly loaded, lower the Tines to increase the tilling depth.
- If the soil is extremely hard and dry, it may be desirable to "cross till" an area at a shallow depth first, then till the soil in the direction of planting rows on subsequent passes until the desired tillage is obtained.
- In soil that was tilled the year before, select the tilling depth at which the Tiller Engine runs comfortable and does not stall or pull down. Lower the depth for additional passes if great depth is desired.
- Where possible, we recommend that you till in a pattern similar to that shown in *Figure 15*.
- 1. Lower the Tines and make the first pass.

NOTE: If you raise the Tines at the end of a pass, use care to lower them back to the same depth. Tilling too deep on the first pass may cause the Tow Vehicle to surge forward and/or cause the Tiller to stall or break Shear Bolts

- 2. Skip a space equal to the width of the machine then make the return pass.
- 3. Till the skipped areas.

Cultivating Tips

You can use the DR TOW-BEHIND ROTOTILLER for cultivating (*Figure 16*), which requires a minimum of two (2) inches of soil penetration.

- Set the tines so they will penetrate the soil to a depth of two (2) to three (3) inches.
- Run the DR TOW-BEHIND ROTOTILLER Engine at Full Throttle except when cultivating small plants. A slower Engine speed is necessary to prevent burying small plants.



Slopes and Uneven Terrain

- Never operate your DR TOW-BEHIND ROTOTILLER on slopes greater than 5 degrees. Doing so could result in serious injury or damage to your machine.
- When operating the machine over uneven terrain and slopes, use extreme caution to not tip over the machine. Move slowly if the ground has ruts, bumps, and other depressions.

Handling and Transporting

We recommend using two (2) people to lift the DR TOW-BEHIND ROTOTILLER. Lift the machine by the Hitch to connect and disconnect from your Tow Vehicle. To transport the machine with your Tow Vehicle, first raise the Tines to the MAX position (lower the Wheels) using the Lift Handle.

Never lift the machine while the Engine is running.

NOTICE

- The DR TOW-BEHIND ROTOTILLER is not equipped for towing on any public roadway.
- When towed, the maximum safe towing speed is 10 mph.

Chapter 4: Maintaining Your DR TOW-BEHIND ROTOTILLER

This chapter covers regular maintenance procedures that will ensure the best performance and long life of your DR TOW-BEHIND ROTOTILLER. For Engine maintenance, please refer to the Engine Owner's Manual that came with your machine. Service intervals listed in the checklist below supersede those listed in the Engine Owner's Manual. Maintenance Kits and accessories are available through our website at **www.DRpower.com**.

When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Regular Maintenance Checklist

NOTE: Consider that the service intervals shown are the maximum under normal operating conditions. Increase frequencies under extremely dirty or dusty conditions.

PROCEDURE	BEFORE EACH USE	Every 8-10 Hours	Every 35 Hours
Check the Engine Oil Level			
Clean the Tines and Debris Shield*	After each use		
Check the general condition of the machine, e.g. nuts, bolts, welds, etc.			
Clean Engine Exterior & Cooling Fins	A		
Check the Tines Shear Bolts for wear	A		
Grease the Tines Shaft			
Check the Transmission Oil Level NOTE: 1 st time 5 to 8 hrs.			
Clean Air Filter			
Inspect the Tine Drive Belt for wear			
Check Tines for Wear			
Change Engine Oil NOTE: 1 st time 5 to 8 hrs.			
Replace Air Filter and Pre-cleaner			
Replace the Tine Drive Belt			
Replace Spark Plug			

* Cover the Engine Muffler, Carburetor, and Air Filter before using a hose to clean the Tines and Debris Shield.

When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Lubrication

Your DR TOW-BEHIND ROTOTILLER was lubricated at the Factory. However, periodic lubrication of the Engine and Tines Shaft is required.

Supplies Needed:

• Grease Gun w/General purpose grease.

Tines Shaft:

Grease the Tines Shaft using a Grease Gun with General Purpose grease every 8-10 hours. Apply about ten (10) pumps of grease in the Grease Fitting (*Figure 17*). Perform this lubrication more often in dry and dusty environments.

Never oil or grease pivot points. Viscous lubricants will attract dust and dirt that can cause wear on pivot points. If you feel you must lubricate them, use only dry powdered graphite type lubricants.

Removing and Replacing the Engine Oil Tools & Supplies Recommended:

- Flat Head Screwdriver
- Vacuum Pump Oil Drainer
- SAE 30 High Detergent, 16 oz. (0.5L)

NOTICE

- Fill the reservoir slowly, checking the level frequently, to avoid overfilling.
- To get an accurate reading when checking the oil level:
 - The machine should be on a level surface.
 - The Dipstick should be screwed all the way in to ensure an accurate fluid level reading.

NOTE: Refer to the Engine Owner's manual for more detailed instructions for Engine maintenance. Drain the oil when the Engine is warm. Warm oil drains quickly and completely.

1. Remove the Oil Fill Cap and vacuum the Oil from the Engine through the Oil Fill (*Figure 18*) using a Vacuum Pump Oil Drainer.

Note: Be sure to use environmentally safe disposal procedures for the used oil.

- 2. Initially add 12 oz. (1/3 quart) of SAE 30 High Detergent oil, recommended by the Engine Manufacturer, and wait one minute for the oil to settle.
- 3. Continue adding a few ounces of oil at a time, until the oil reaches the Full line on the Dipstick (*Figure 19*). Be careful not to overfill.

Note: Use SAE 30 High Detergent oil classified "For Service SF, SG, SH, SJ" or higher. Do not use special additives. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.



Figure 17







When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.



Figure 20



Figure 21

NOTICE

- Use only DR belts on your machine. They have been thoroughly tested and proven for many hours of use.
- Do not move or remove the belt guide (*Figure 21*). If you accidentally alter the position of the belt guide, return it to the correct setting of 6-1/4" vertical inches from the fender to the bottom of guide.

Replace the Tine Drive V-Belt if damaged from slipping under heavy loads or if it shows cracks or frayed edges.

Tools and Supplies Needed:

- 3/8" Socket
- 1. Remove the two Bolts from the top and rear of the Belt Guard using a 3/8" Socket and remove the Belt Guard *(Figure 20)*.
- 2. Pull the Tine Clutch Lever Forwards to disengage.
- 3. Remove the worn Belt from the Engine Pulley and Transmission Pulley *(Figure 21)*.
- 4. Reinstall a new Belt around the Engine Pulley and Transmission Pulley and under the Idler Pulley.
- 5. Engage the Tine Clutch Lever and replace the Belt Guard.

Before performing this check, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Tine Operation Check

- 1. Pull the Tine Clutch Lever Forward to disengage the Tines and raise them up off the ground using the Lift Handle.
- 2. Rotate one set of Tines with your hand as you inspect them for damage. Repeat this step for the other set of Tines.
- 3. Replace the Spark Plug wire.

Tine Shear Bolts

• The DR TOW-BEHIND ROTOTILLER drive components are protected from damage by Shear Bolts in the Tine Assemblies (*Figure 22*). The Shear Bolts hold the Tine Assemblies in proper location on the Drive Axles. Should a Tine Assembly strike or pick up a large hidden object and jam, the Shear Bolt holding the Tine Assembly to the drive shaft will shear or break, protecting the drive components of the DR TOW-BEHIND ROTOTILLER from major damage.

🛕 WARNING

Never attempt to use a bolt that is larger or harder than the original shear Bolt.

- Two (2) extra Tine Shear Bolts with Lock Washers are included with the DR TOW-BEHIND ROTOTILLER. They are located in the Tiller Stake Support Bracket on the rear of the Tiller.
- The design of the Tine Shear Bolt is to loosely fit when properly installed.





This Page Intentionally Left Blank

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table for common problems and their solutions. If you continue to experience problems, visit our website at **www.DRPower.com** or call: 1-800-DR-OWNER (376-9637) for support.

Troubleshooting Table

When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Symptom	POSSIBLE CAUSE		
Recoil will not pull out or is difficult to pull.	\Rightarrow Check that the Tine Drive Clutch is disengaged.		
	\Rightarrow Check the Engine Oil level; the Engine may be seized.		
	⇒ There may be an Oil compression lock in the Cylinder. Take out the Spark Plug; hold a rag over the Spark Plug Hole and pull the Recoil Cord several times to blow out any Oil in the Cylinder. Wipe off the Spark Plug and reinstall it.		
	\Rightarrow The Recoil may be broken or jammed. Visit our website at www.DRpower.com.		
The Engine will not	\Rightarrow Check that the Tine Drive Clutch is disengaged.		
start.	\Rightarrow Check that the Spark Plug Wire is attached.		
(Please refer to the	\Rightarrow Check the Oil and Gas level. See page 10.		
Engine Owner's Manual for Engine-	⇒ The Gas may be old; change it if necessary. Use a fuel stabilizer if you keep Gas longer than one month.		
specific procedures.)	\Rightarrow The Fuel Tank may be clogged. Remove it and clean it out.		
	\Rightarrow Check the Throttle and Choke settings, adjustment and travel.		
	⇒ The Engine is Choked improperly flooding the Engine. Move the Choke to the RUN position, move the Throttle to the FAST position and pull the Recoil Starter several times to clear out Gas.		
	⇒ The Spark Plug may be dirty or cracked; change it if necessary. If it's oily, leave it out, hold a rag over the Plug Hole and pull the Recoil Cord several times to blow out any Oil in the Cylinder, then wipe off the Plug and reinsert it.		
	\Rightarrow The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.		
	\Rightarrow If your Engine still won't start, visit our website at www.DRpower.com.		
The Engine lacks	\Rightarrow The Engine is overloaded. Set Depth Stake and Wheels for shallower tilling.		
power or is not running smoothly.	\Rightarrow Check the Throttle; it should be set in the FAST position.		
running shiootiny.	\Rightarrow The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.		
(Please refer to the	\Rightarrow Dirty Air Screen. Clean the Air Screen.		
Engine Owner's Manual for engine- specific procedures.)	⇒ The Spark Plug may be dirty or cracked; change it if necessary. If it's oily, leave it out, hold a rag over the Plug hole and pull the Recoil Cord several times to blow out any Oil in the Cylinder, then wipe off the Plug, check the gap and reinsert it.		
	⇒ The Gas may be old; change it if necessary. Use a fuel stabilizer if you keep Gas longer than one month.		
	\Rightarrow The Engine Oil may be dirty. Change it if necessary, following the procedure on page 16.		
	\Rightarrow If your Engine still lacks power, visit our website at www.DRpower.com.		

SYMPTOM POSSIBLE CAUSE		
Engine smokes and	\Rightarrow Check the Oil level and adjust as needed.	
overheats.	\Rightarrow The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.	
	\Rightarrow Dirty Air Screen. Clean the Air Screen.	
	\Rightarrow You may be using the wrong Oil. Refer to your Engine Owner's Manual for detailed information.	
	\Rightarrow Clean the Engine cooling fins and the Carburetor Housing if they are dirty.	
	\Rightarrow If the Engine still smokes, visit our website at www.DRpower.com.	
The Engine runs well	\Rightarrow The Tine Drive Clutch is not engaged.	
but the Tines won't move.	\Rightarrow The Tine Drive V-Belt is off the pulleys or broken. See page 18.	
The Engine runs well	\Rightarrow Operator is being too aggressive; raise the Tines.	
but labors when tilling.	\Rightarrow The tilling is too deep. Adjust the Depth Stake.	
vining.	\Rightarrow Be sure the Engine Throttle is set on the Fast (RABBIT) position.	
Excessive bounce and difficult handling.	⇒ The area you are tilling may be too dry and hard. Moisten the ground or wait for conditions that are more favorable.	
	\Rightarrow Be sure the Engine Throttle is set on the Fast (RABBIT) position.	
	\Rightarrow The Wheels and Depth Stake are incorrectly adjusted. Readjust the Wheels and Depth Stake.	
	\Rightarrow If your DR TOW-BEHIND ROTOTILLER still bounces, visit our website at www.DRpower.com.	
The tilled soil balls up or clumps.	\Rightarrow The ground that you are trying to till is too moist. See Tilling Tips on page 14.	
Tow Vehicle surges	\Rightarrow Tines are set too deep. Set the Tines to appropriate depth of 1 to 2 inches per pass.	
forward.	⇒ The Tines are engaged while on the ground or in the soil. Ensure the Tines are raised and are not in contact with anything before engaging.	
	⇒ The Tines are too low and engaged when coming to an untilled area at the end of tilled area. Stop the Tow Vehicle so the Tiller Tines are short of the untilled area, disengage and lift the Tines up before continuing.	
	⇒ Tilling in an area with large roots, surface rocks or other debris. Remove obstacles if possible. If obstacles cannot be removed, do not use the Tiller in that area.	
	⇒ The rotating Tines are lowered to fast. Lower the Tines slowly into area to be tilled to prevent overload; especially in untilled sod.	

Parts List - Main Assembly

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	A0005707744	DR Tiller Tine Drive Assembly	50	160031	Pin-Hitch Clip 1/2-9/16
2	231210	Chassis - LH - TPT	51	224521	Label-Tines Warning
3	231220	Chassis - RH - TPT	52	110721	Nut-Nylon Lock 1/2-13
4	111491	Bolt-HCS, 1/4-20 X 1 Gr5 ZP	53	376590	Plate - Guard Mounting - TPT
5	233040	Nut-Flang Hex 1/4-20 Center Lock	54	G050190	Washer Flat .344id X 1.0od
6	A0005506408	ASS'Y-Hitch Bracket W/Tow Bar	55	330100	Grip-7/16" Id X 2.75 Lg
7	111581	Bolt-HCS, 5/16-18 X 1 Gr5 ZP	56	233060	Bolt-HCS, 5/16-24 X 1 [″] W/Lock
8	110761	Nut-Lock Nylon 5/16-18			Patch
9	A0005247305	Cover-Drive TPT Premier	57	179121	Bolt-Tri 1/4-20 X 1/2
10	231330	Bracket - Idler Arm - TPT	58	323820	Spacer-Shoulder-Idler
11	236170	Switch-Interlock TPT	59	111521	Bolt, HCS, 3/8-16 X 1 Gr5 ZP
12	118731	Nut-Lock Nylon 10-24	60	A0005214640	Arm-Lift Handle
13	114781	Screw-Panhead 10-24 X 5/8 In	61	234191	Pin, Hair Cotter 1/8 X 1-5/8
14	276611	Pulley - Flat Idler - 2-3/4 Dia	62	231280	Cap Fender End Lg TPT
15	123341	Bolt-HCS 3/8-16 X 1-3/4 Gr5 ZP	63	G024426	Screw, HHC 1/2-13 X 1-3/4 G5
16	110751	Nut-Lock Nylon 3/8-16	64	330190	Bracket, Wheel Weight Support
17	330090	Rod, Clutch TPT	65	330210	Strap-Extension Brace
18	A0005511762	Fender W/Labels-Premier 36T Tiller	66	112391	Washer-Flat 3/8 USS
19	A0005512305	Engine W/Labels-Dr 6.6hp 223cc E/S	67	330140	Wheel-10" X 2.25
		R225	68	223130	Pivot Axle Assy, Tow Behind Tiller
20	233110	Rod V-Belt Guide	69	330160	Strap-Frame Extension
21	112411	Washer-Flat 5/16 USS	70	A0000057791	Bolt-5/8-11 X 7in-Hex-Zp
22	A0000585488	Label, DR Logo Red 4.5in	71	101311	Nut-Nylon Lock 5/8-11
23	233160	Nut Hex 5/16-18 Flanged Loc	72	330180	Stake, Drag TPT Premier
24	224511	Label-Guards & Shields Warning	73	231350	Footguard Tiller TPT
25	232660	Clutch Lever TPT	74	330170	Pin-Clevis .5 X 1.5 ZP
26	337871	Pin - Cotter Hair - 1/4 - 3/8	75	330620	Spacer, .532id X .750od X 2.11
27	134431	Bolt-HCS5/16-18 X 1-1/2 Gr5 ZP	76	231270	Cap, Fender End Rh TPT
28	112381	Washer-Flat 1/4 USS	77	330580	Bolt-Hex 1/2-13 X 5-1/2 Gr5
29	330150	Anchor TPT Premier	78	376470	Bolt Hex 3/8-16 X 2 Ft Gr2
30	337251	Key Square 3/16 X 1.75 Wh1	79	G045900	Washer Flat 3/4 Zinc
31	G061342	Screw HHC, 1/2-13 X 1-1/4 G5	80	0D4999	Pin, Cotter 1/8 X 1-1/4 ZP
32	120171	Screw-Set 5/16-18 X 5/16 In	81	119851	Bolt - HCS - 3/8-16 X 1 1/2 - Gr5 ZP
33	233570	Pulley, 8" Od	82	330250	Anchor - Adjustment TPT Premier
34	371691	Key - Ansi #605 Woodruff - 3/16 X 5/8	83	330060	Nut, Hex 1/2-20 Jam
35	111241	Ring-Retaining 5/8″	84	330050	Nut-Jam-Nylon Lock 1/2-20
36	114431	Belt 4l450 12 In X 45 In	85	330240	Rod - Lift TPT Premier
37	232720	Extension Spring	86	234991	Washer, 0.53 Id X 1.06 Od X 0.095 -
38	A0005506409	Cover-Belt W/Labels-36T Tiller			ZP
39	311161	Bolt-HWH 5/16-18 X .75 Taptite ZP	87	330070	Spring-Depth Extension
40	376460	Assy – Safe Start Module	88	126861	Bolt, HCS, 3/8-16 X 2 Gr5 ZP
41	MGHDW008	8" Zip Tie with Hole	89	126831	Nut, Finish, 3/8-16
42	A0001497252	Label-Operating Premier/Pro 36T Tiller	90	330250	Anchor - Adjustment TPT Premier
43	110731	Nut-Lock Nylon 1/4-20	91	365211	Bolt-Hex Flange 1/4-20 X 5/8 ZP
44	G063480	Nut, Hex, Nylock 8-32	92	110701	Nut - Finish - 1/4-20 - ZP
45	A0000567495	Label-Premier 36t	93	187621	Bolt Carriage 5/16-18 X1 Gr5 ZP
46	G022287	Screw HHC, 1/4-20 X 3/4 G5	94	330081	ASS'Y-Lift Handle Premier
47	G036919	Screw PPHM, #8-32 X 5/8	95	330610	Washer406id X 1.187od X .187
48	376580	Bracket Hitch Ext TPT 9.5 Pro	96	330600	Spacer406id X .550od X .62
49	A0005247660	Pin-Bent Arm 1/2 X 3	97	330040	Pulley-4.5" Od Tiller



Parts List and Schematic Diagram -Tine Drive Transmission Assembly

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
1	303150	Assy, Tine Shaft & Sprocket Tpt
2	233440	Assy, Idler Shaft TPT
3	330300	Input Shaft Assy, TPT Premier
4	233520	Drive Housing Assy, RH TPT
5	233450	Chain, Roller Short TPT
6	233410	Chain, Roller Long TPT
7	233490	Gasket, Drive Housing TPT
8	233530	Drive Housing Assy, LH TPT
9	233390	Gasket, Flange TPT
10	3031409	Bearing And Flange Assy
11	233470	Bracket-Belt Guard & Idler
12	233160	Nut, Hex, 5/16-18 Flanged Lock
13	233400	Felt Washer, .985 X 1.515

Ref#	Part#	Description
14	G022287	Screw, HHC, 1/4-20 X 3/4 GR5
15	365211	Bolt, Hex Flange, 1/4-20 X 5/8 ZP
16	233040	Nut, Flng, Hex 1/4-20 Center Lock
17	330320	Tine Assembly, (LH) TPT Premier
18	330330	Tine Assembly, (RH) TPT Premier
19	376470	Bolt, Hex, 3/8-16 X 2 FT GR2
20	110751	Nut, Lock, Nylon 3/8-16
21	233420	Washer, Thrust, .64 X .937
22	231380	Сар ТРТ
23	233540	Seal, Grease, 5/8 Id X 7/8 Od X .15 Thk
24	G026925	Plug, Std Pipe, 3/8 Steel Sq Hd



Notes

DR® TOW-BEHIND TILLER



2-Year Limited Warranty

Terms and Conditions

The **DR**[®] TOW-BEHIND ROTOTILLER is warranted for two (2) years against defects in materials or workmanship when put to ordinary and normal consumer use; ninety (90) days for any other use. The Engine Manufacturer warrants the Engine separately.

For the purposes of all the above warranties, "ordinary and normal consumer use" refers to non-commercial residential use and does not include misuse, accidents, or damage due to inadequate maintenance.

DR[®] Power Equipment certifies that the **DR**[®] TOW-BEHIND ROTOTILLER is fit for ordinary purposes for which a product of this type is used. **DR**[®] Power Equipment however, limits the implied warranties of merchantability and fitness in duration to a period of two (2) years in consumer use, ninety (90) days for any other use.

The 2-Year Limited Warranty on the **DR**[®] TOW-BEHIND ROTOTILLER starts on the date the machine ships from our factory. The 2-Year Limited Warranty is applicable only to the original owner.

The warranty holder is responsible for the performance of the required maintenance as defined by the manufacturer's owner manuals. The warranty holder is responsible for replacement of normally wearing parts such as the Drive Belt, Tines, Tires, Shear Pins, Spark Plug and Air Filter. Attachments and accessories to the machine are not covered by this warranty.

During the warranty period, the warranty holder is responsible for the machine transportation charges, if required. During the warranty period, warranty parts will ship by standard method at no charge to the warranty holder. Expedited shipping of warranty parts is the responsibility of the warranty holder.

SOME STATES DO NOT ALLOW LIMITATIONS ON THE LENGTH OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

DR[®] Power Equipment shall not be liable under any circumstances for any **incidental or consequential damages or expenses** of any kind, including, but not limited to, cost of equipment rentals, loss of profit, or cost of hiring services to perform tasks normally performed by the **DR**[®] TOW-BEHIND ROTOTILLER.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Daily Checklist for the DR TOW-BEHIND ROTOTILLER

When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

To help maintain your DR TOW-BEHIND ROTOTILLER for optimum performance, we recommend you follow this checklist each time you use your machine.

- [] OIL: With the machine on a level surface, remove the Oil Fill Cap and check the Oil level. Fill the reservoir until the Oil reaches just below the threads with SAE 30 HD motor oil. See page 9.
- [] GAS: Fill the Gas Tank with fresh, unleaded gasoline. See page 9.
- [] ENGINE: It is very important to keep the Engine clean. Remove dirt and other debris from the Engine Cooling Fins. A dirty Engine retains heat and can cause damage to internal Engine components.
- [] HARDWARE: Check all nuts and bolts to be sure that the components are secure.
- [] FRAME: Check all welds to be sure that the Frame is intact and secure.
- [] TINES: Make sure that the Tine Assemblies and Debris Shield are free of accumulated debris.

End of Season and Storage

When performing any maintenance, you must first shut off the Engine; wait five (5) minutes to allow parts to cool and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

NOTE: Please refer to the Engine Owner's Manual for Engine-specific procedures.

- Change the Engine oil.
- If your DR TOW-BEHIND ROTOTILLER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the Carburetor. If there is dirt or moisture in the Gas or Tank, remove it by draining the Tank. Completely fill the Tank with fresh, unleaded Gas and add the appropriate amount of stabilizer or gasoline additive. Run the Engine for a short time to allow the additive to circulate.
- Remove the Spark Plug and pour about 1 ounce of motor oil into the cylinder hole. Replace the Plug and pull the Recoil Starter Rope until you feel strong resistance. This will coat the Piston and seat the Valves to prevent moisture buildup.
- Clean or replace the Engine Air Filter. Reference the Engine Owner's Manual.
- Clean dirt and debris from the Engine Cylinder Head Cooling Fins, Debris Screen, and Muffler.
- Clean out residual debris from the underside of the Debris Shield and Tine Assemblies.
- Lubricate the Tine Assemblies. See page 16-17.
- Touch up all rusted or chipped painted surfaces. Sand them lightly before painting.
- Be sure all Nuts, Bolts, and Screws are securely fastened.
- Inspect moving parts and the Tine Drive Belt for damage and wear; replace if necessary.
- If possible, store your DR TOW-BEHIND ROTOTILLER inside, but not near an open flame or spark such as found in a water heater.
- After the DR TOW-BEHIND ROTOTILLER has cooled, cover the machine with a suitable protective cover that does not retain moisture. Do not use plastic, as this material cannot breathe; it also allows condensation to form, which will cause your machine to rust.



800 HINESBURG ROAD, SOUTH BURLINGTON, VERMONT 05403